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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,050	03/12/2001	James W. Forbes	5699-31	7515

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EXAMINER

OLSON, LARS A

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 08/05/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/804,050

Applicant(s)

FORBES, JAMES W.

Examiner

Lars A Olson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29,30 and 36-45 is/are allowed.
- 6) ☒ Claim(s) 2-28,31-35 and 46-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

1. An amendment was received from the applicant on June 10, 2002.
2. Claim 1 has been canceled.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-28 and 31-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dominguez et al. (US 4,951,575) in view of Beals (US 5,943,963).

Dominguez et al. discloses a center beam railroad car, as shown in Figures 1-3, with a deck structure that is carried by trucks, and has first and second end portions and a medial portion between said end portions, where said medial portion is stepped downward relative to said end portions, as shown in Figure 1. Said center beam railroad car also has first and second end bulkheads, as shown in Figures 1, 3 and 11, that extend upwardly from opposite ends of said deck structure, a central beam assembly that runs lengthwise between said bulkheads and stands upwardly of said deck structure, a center sill and a pair of side sills, as shown in Figure 5, a knee that joins a side sill medial portion to each of a pair of side sill end portions, as shown in

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Figure 11, a draft sill with draft pocket, defined as Part #22 in Figure 5, and a draft pocket cap plate, which is shown beneath Part #66 in Figure 5, lading securement apparatus, as shown in Figure 11, at least one post that stands upwardly of said deck structure, as shown in Figure 3, and a top chord member that extends between said end bulkheads, as shown in Figures 1 and 3.

Dominguez et al., as set forth above, does not disclose the use of a center beam railroad car that has first and second end bulkheads that extend to a greater height relative to said central beam assembly.

Beals discloses a railroad flat car with a pair of end bulkheads, as shown in Figure 1, that extend to a greater height than a load that is stacked onto the bed of said flat car, as well as any load supports that may be provided on said flat car, such as a central beam assembly.

The use of bulkheads that extend to a height beyond AAR Plate C, bulkheads that fall within AAR Plate F, a loading height limit that exceeds the total height of a central beam assembly by at least 33.625 inches, a loading height limit that is within AAR Plate-F, a loading height that exceeds AAR Plate C, a loading height limit to central beam assembly height ratio that is at least as great as 4:3 or 5:4, a ratio of the loading limit height minus the height of a medial portion that is stepped downward over the total height of a central beam assembly is at least as great as 3:2 or 4:3, a medial portion of a deck structure that is stepped downward by at least 30 or 33.625 inches, bulkheads that exceed the height of a central beam assembly by at least 33.625 inches, a medial deck portion that is at least 28 or 40 feet long, side sills with varying depth of section, side sill portions with varying outboard distance, and a center sill with a depth of section between an

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upper flange and a lower flange of at least 30 inches, are all design choices based upon the desired load to be carried by a center beam railroad car, and the required size of said railroad car in order for it to be able support the desired load.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a pair of end bulkheads that extend to a greater height than a central beam assembly, as taught by Beals, in combination with the center beam railroad car as disclosed by Dominguez et al. for the purpose of providing a center beam railroad car that is capable of carrying greater loads.

5. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dominguez et al. in view of Saxton (US 5,758,584).

Dominguez et al., as set forth above, discloses all of the features claimed except for the use of a top chord that is mated with an end bulkhead in line with a central vertical post, and an end bulkhead with a cross beam that is mated to a central vertical post at a level that corresponds to said top chord.

Saxton discloses a center beam railroad car, as shown in Figure 1, with an end bulkhead that is mated to a top chord member in line with a central vertical post on said bulkhead, as shown in Figure 3, and a cross beam that is mated to said central vertical post at a level that corresponds with said top chord member, as shown in Figure 3.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize end bulkheads, as taught by Saxton, in combination with the center beam

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railroad car as disclosed by Dominguez et al. for the purpose of providing a center beam railroad car with stronger end bulkheads in order to allow said railroad car to support and carry heavier loads.

6. Claims 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dominguez et al. in view of Saxton, and further in view of Butcher et al. (US 4,802,420).

Dominguez et al. in combination with the teachings of Saxton shows all of the features claimed except for the use of a bolster with gussets mounted between the webs of a center sill in order to provide web continuity through said center sill.

Butcher et al. discloses a center beam railroad car, as shown in Figures 1 and 3, that includes the use of a bolster with gussets mounted between the webs of a center sill, as shown in Figure 3, in order to provide web continuity through said center sill.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to utilize a bolster with gussets, as taught by Butcher et al., in combination with the center beam railroad car as disclosed by Dominguez et al. and the teachings of Saxton for the purpose of providing a center beam railroad car with a stronger undercarriage in order to allow said railroad car to support and carry heavier loads.

***Allowable Subject Matter***

7. Claims 29, 30 and 36-45 are allowed.

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8. The prior art does not show or suggest the use of a medial portion of a railroad car deck structure that is connected to an end portion of said deck structure by a transition member that includes a foothold to facilitate ascent of said end portion from said medial portion of said deck structure. The prior art also does not show or suggest the use of a center beam railroad car with a bulkhead having at least one shear panel extension mounted to a bulkhead sheet and extending longitudinally outboard therefrom, where said shear panel extension lies longitudinally outboard of a shear panel and between the webs of a central vertical post.

#### *Response to Arguments*

9. Applicant's arguments filed on June 10, 2002 have been fully considered but they are not persuasive.

10. The applicant argues that it is not obvious to modify the railroad car as shown by Dominguez et al. (US 4,951,575) to include end bulkheads that extend above the height of AAR Plate C. The applicant also argues that it is not obvious to modify the railroad car as shown by Dominguez et al. to include a central deck portion that is stepped downward by at least 30 inches. The applicant further argues that Dominguez et al. does not disclose the use of a draft pocket with an internal draft pocket cap plate.

In response to the applicant's first argument, a rail car has three dimensions that may be altered in order to allow said rail car to accommodate greater cargo loads, length, width and height. There is a functional limitation to the width that a rail car can be constructed due to the

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fixed gauge of track on which said rail car travels. There is also a functional limitation to the length that a rail car can be constructed, because a center sill can only effectively support a load between two trucks to a point where the deflection of said center sill while under load could potentially contact the ground during operation. Thus, the simplest way to increase the cargo capacity of a rail car is to increase the height of said rail car. In order to do so, it would be obvious to one of ordinary skill in the art to increase the designed height of any end, side or center bulkheads as necessary on said rail car in order to support the taller load on said rail car during operation. Therefore, the rejection of claims 2-10, 14-17, 27, 28 and 31-35 is deemed proper and is not withdrawn on these grounds.

In response to the applicant's second argument, there is also a functional limitation to the height that a rail car can be constructed without causing the center of gravity of said rail car to be at a height that causes said rail car to be unstable during operation. Thus, instead of making a rail car higher in order to increase load capacity, a rail car can also be made lower with a dropped down central portion between a pair of trucks, thereby increasing the load height of said rail car without increasing the overall height of said rail car. If a rail car is already designed to be constructed to a maximum overall height, it would be obvious to one of ordinary skill in the art to design a dropped down central portion of said rail car as low as is feasible without contacting the ground during operation in order to increase load capacity and not increase the overall height of said rail car. Therefore, the rejection of claims 11-13 and 18-26 is deemed proper and is not withdrawn on these grounds.



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In response to the applicant's third argument, Dominguez et al. discloses a draft pocket, defined as Part #22 in Figure 5, with a draft pocket cap plate, which is shown beneath Part #66 in Figure 5. Therefore, the rejection of claims 31-35 is deemed proper and is not withdrawn on these grounds.

*Conclusion*

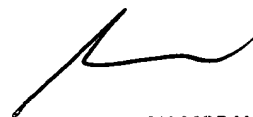
11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

12. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (703) 308-9807.

lo

August 2, 2002



S. JOSEPH  
SUPERVISOR, PATENT EXAMINER  
TECHNICAL STAFF, USPTO